

## REMARKS/ARGUMENTS

The amendments and remarks hereto attend to all outstanding issues in the pending office action of 11 February, 2004. Claims 1-21 remain pending in this application. Claims 1, 8, 9, 12, 13, 14, 15, 16 and 19 are amended.

The attention of the Office is directed to the filing by facsimile transmission of a Power of Attorney and a Request to Amend Attorney Docket Number on 1 August 2002. The office action of 11 February 2004 was mailed to a previous attorney of record and lists a previous docket number in this application. Applicant requests that the Office update its records.

### **In the Drawings**

Figure 8 is amended to clarify the correspondence between details of the drawing and claim elements. No new matter is introduced through this drawing amendment.

### **In the Specification**

The specification is amended to identify labeled items within Figure 8 as amended. No new matter is introduced.

### **In the Claims**

Claim 8 is amended to remove the character --\*-- (denoting multiplication) in two places, for consistency with the mathematical notation used throughout the rest of the application. This amendment finds support in the specification at page 15, lines 2-3.

Claim 9 is amended to change the character --δ-- to its superscript form --<sup>δ</sup>-- (denoting an exponent). This amendment finds support in the specification at page 16, lines 10-12.

Claims 12, 13, 14, 15 and 19 are amended to eliminate the duplication of the word "the." Claims 16 and 19 are amended to replace the word "The" with "A."

Claim 13 is also amended to change the word “circle” to “peripheral region” to correct an error in antecedence.

Claim 14 is also amended to change part of a mathematical formula from -- $\Omega$ -- to -- $\Omega_1$ -- in two places. This amendment finds support in the specification at page 22, line 1.

All of the foregoing amendments to the claims serve to correct typographical errors in the application as originally submitted.

Claim 1 is amended to remove the limitation “wherein the phase profile applied by the Wavefront Coding Optics is aspheric and rotationally asymmetric.”

Claim 16 is amended to remove the limitation “arranging the peripheral region such that the Wavefront Coding Optics are aspherical and rotationally nonsymmetric.”

Claim 19 is amended to remove the limitation “the applying steps operating to result in an overall applied phase profile that is aspherical and rotationally nonsymmetric.”

No new matter is introduced through the claim amendments.

#### **1. Objection to the Drawings under 37 C.F.R. §1.83(b)**

The Examiner has objected to the drawings in this application under 37 C.F.R. §1.83(b). Applicant submits a replacement drawing and a specification amendment in this response, to show the correspondence of the material in the drawings with the features of the claims. Applicant respectfully requests withdrawal of the Examiner’s objection to the drawings.

#### **2. Claim Rejections – 35 U.S.C. §112, second paragraph**

The Examiner has rejected claims 1-21 under 35 USC §112, second paragraph as being indefinite, based on the claimed features of the optics not being understandable without supporting drawings. Applicant disagrees that the claimed features are not shown, but has amended Figure 8 and specification to show the correspondence between certain claim elements and drawing features.

For example, the Examiner noted that the improvements of claims 1, 16 and 19 include “a central region that applies an essentially constant phase profile to light from the object passing through the central region, and a peripheral region applies a phase profile to light from the object that has alternating increasing and decreasing phase relative to the central region.” Figure 8 as amended identifies “a central region” (region 808), “a peripheral region” (regions 804(a) and 804(b)), the (essentially constant) phase profile applied in the central region (region 812) and the phase profile (with alternating increasing and decreasing phase relative to the central region) applied in the peripheral regions (regions 810(a) and 810(b)).

Information helpful to the understanding of Improved Wavefront Coding Optics, and optical elements which may be used to implement embodiments thereof, may be found at page 11, lines 1-16 of the specification. Background information on Wavefront Coding Optics may also be found in U.S. Patent No. 6,021,005 which is incorporated by reference into the specification (at page 1, lines 4-6).

Applicant accordingly requests reconsideration and withdrawal of the rejection of claims 1-21 under 35 U.S.C. §112, second paragraph.

**Conclusion**

In view of the above Amendments and Remarks, Applicant has addressed all issues raised in the Office Action dated 11 February 2004, and respectfully solicits a Notice of Allowance. Should any issues remain, the Examiner is encouraged to telephone the undersigned attorney.

Applicant believes no fees are currently due, however, if any fee is deemed necessary in connection with this Amendment and Response, please charge Deposit Account No. 12-0600.

Respectfully submitted,  
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